Coastal Observation Technology System Project Summary – 2004

Project Name/Title: Enhancements to the Coastal Ocean Monitoring and Prediction System for West Florida: A Component of the Integrated Ocean Observing System

Date Project Initiated: August 1, 2004

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Brief Project Summary: Under this project, new elements will be added to the USF Coastal Ocean Monitoring and Prediction System (COMPS) observing array to complement existing USF and NOAA assets in the coastal ocean of West Florida. New coastal and offshore stations with meteorological and oceanographic sensors, a new coastal ocean surface current radar site, a directional wave buoy, and an autonomous glider will be added to the COMPS observational suite to fill critical voids and extend coverage of the observing system. All COMPS water-level observations will be brought up to National Ocean Service (NOS) standards to permit integration of these water level measurements into the National Water Level Program (NWLP), the national backbone program operated by the NOS Center for Operational Oceanographic Products and Services (CO-OPS).

Accomplishments to Date: This project has not yet begun. COMPS has been operational since 1998 and has provided real-time data for numerous coastal marine applications. The Tampa Bay Physical Oceanographic Real-Time System (TB-PORTS) has been operational since 1992 and is a component of COMPS. TB-PORTS provides real-time information for safe and efficient maritime transportation and for environmental protection.

Current Year Objectives:

- Establish additional oceanographic and meteorological observing systems at critical locations along the West Florida coast to augment and enhance the exiting observing array on the West Florida Shelf, including the following:
  - Additional water-level, meteorological, and oceanographic observing sites at Cape Romano, Boca Ciega Bay, Booker Creek, and Keaton Beach.
  - An Ocean-Atmosphere flux observing buoy off Panama City at the shelf break/head of Desoto Canyon.
  - A nearshore Ocean-Atmosphere flux observing site off Longboat Key with waves.
  - A Long-Range CODAR surface current radar site at Cedar Key to extend the existing array northward.

    - A WaveRider directional wave buoy to be deployed off Pinellas County to provide wave measurements to compare with wave estimates from the CODAR array.
    - A Webb glider to augment observations of water column temperature and salinity at fixed sites and from the free-drifting Bottom Stationed Ocean Profilers (BSOPs).
    - Four additional BSOPs to augment the existing fleet of 10 BSOPs to provide distributed profiles of temperature and salinity.
    - Acquire adequate spares for existing and new buoy and coastal stations.
- Upgrade the operational status of the USF water-level station network to ensure the data meet NWLP standards for operation, data dissemination, and vertical control.
- Complete the integration of data collection, processing, quality control, and dissemination of water level and other observations taken by COMPS with the NWLP and the National Data Buoy Center data systems.

Partners:

- NOAA National Ocean Service Center for Operational Oceanographic Products and Services
- NOAA National Data Buoy Center
- U.S. Coast Guard
- U.S. Geological Survey
- Florida Fish and Wildlife Conservation Commission/Florida Marine Research Institute
- Florida Department of Environmental Protection
- Florida Institute of Oceanography
- Pinellas County
- Tampa Port Authority
- Pasco County Office of Emergency Preparedness
- Citrus County Office of Emergency Management
- The Pier Aquarium
- Campbell Park Elementary School